



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,157	03/19/2004	Nischal Abrol	030389	8635
23696	7590	02/25/2008		
QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER	SATKIEWICZ, THOMAS E.
		ART UNIT	PAPER NUMBER	
		4183		
		NOTIFICATION DATE	DELIVERY MODE	
		02/25/2008	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 10/805,157	Applicant(s) ABROL ET AL.
	Examiner THOMAS E. SATKIEWICZ	Art Unit 4183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 March 2004.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-39 is/are rejected.

7) Claim(s) 32 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 07/10/2006

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Claim Objections

1. Claim 33 is objected to because of the following informalities: Page 23, Line 2 (at at least one of the terminal equipment and a site associated with the PDSN; and) should have only one "at" and not two. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 3. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant
4. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. With regards to Claim 1, 15, 22, 28, 33, for the phrase "ones of the at least one packet", it is unclear as to how many packets are required. This phrase calls for ones which suggest that there are multiple packets, but the phrase "at least one packet" allows for only one packet.
6. In addition, with respect to Claim 1, it is unclear how a comparator "delineat[es]" (which is defined as " describe or indicate precisely") a received connection identifier against the list. Is the meaning that the comparator delineates a received connection identification after comparing a received connection identification against the at least one list?

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-34 are rejected under 35 U.S.C. 102(e) as being anticipated by

Parantainen et al. (U.S. 7,054,268).

3. With regards to Claim 1, Parantainen teaches a snooper (Step 1952; Fig#12) for efficiently processing at least one Internet Protocol (IP) packet (Column 22, Lines 36-39) incoming to a mobile station (Mobile Station (MS); Column 19, Line 42), comprising; a receiver (RF receiver; 111, Fig#10) for receiving the at least one packet (Column 18, Lines 2-3); a storage (Memory; 104, Fig#10), communicatively associated with said receiver (Column 21, Lines 10-13), for storing at least one list (Column 20, Lines 12-21), wherein the at least one list includes at least one Van Jacobson (VJ) connection identification (Compressed TCP/IP) (Protocol/Application; Column 22, Line 51) of at least one of an active originator and an active destination for ones of the least one packet (Column 19, Lines 32-39); and a comparator (Fig#8) for delineating a received connection identification of one of the VJ compressed (Column 18, Lines 55-58) ones of the least one packet received at said receiver against the at least one list (Column 22, Lines 26-54).

4. With regards to claim 2, Parantainen teaches a snooper, wherein said comparator forwards only those of the at least one packet having a received connection identification delineated (Column 22, Lines 36-39) to one of the at least one connection identifications on the at least one list to an uncompressor local to the received connection identification (Column 18, Lines 51-61).

5. With regards to claim 3, Parantainen teaches a snooper, wherein the uncompressor is at the mobile station (Column 21, Lines 10-25).

6. With regards to claim 4, Parantainen teaches a snooper, wherein the list includes the connection identifications of the active destinations at the mobile station (104, Fig#10).

7. With regards to claim 5, Parantainen teaches a snooper, wherein said comparator delineates (Column 22, Lines 36-39) by comparing a received connection identification of one of the VJ compressed (Protocol/Application; Column 22, Line 51) ones of the at least one packet received at said receiver against the at least one list (104, Fig #10).

8. With regards to claim 6 Parantainen teaches a snooper, wherein said comparator forwards only those of the at least one packet having a received connection identification that matches one of the at least connection identifications on the at least one list (Column 18, Lines 17-30).

9. With regards to claim 7 Parantainen teaches a snooper, wherein the at least one list includes at least one connection identification of at least one active destination for ones of the at least one packet (Column 18, Lines 17-30).

10. With regards to claim 8 Parantainen teaches a snooper, wherein said comparator forwards only those of the at least one packet having a received connection identification that does not match one of the at least one connection identification on the least one list (Column 18, Lines 17-30).
11. With regards to claim 9 Parantainen teaches a snooper, wherein the at least one list includes at least one connection identification of at least one active originator for ones of the at least one packet (Column 18, Lines 17-30).
12. With regards to claim 10, Parantainen teaches a snooper, wherein the uncompressor is at a terminal equipment tethered to the mobile station (Column 18, Lines 1-16).
13. With regards to claim 11, Parantainen teaches a snooper, wherein the list includes the connection identifications of the active destinations at the terminal equipment (Column 22, Lines 48--54).
14. With regards to claim 12, Parantainen teaches a snooper, wherein said comparator forwards only those of the at least one packet having a received connection identification that matches one of the at least connection identifications on the at least one list (Column 22, Lines 48-54).
15. With regards to claim 13, Parantainen teaches a snooper, wherein the at least one list includes at least one connection identification of at least one active destination for ones of the at least one packet (Column 22, Lines 48-54).

16. With regards to claim 14, Parantainen teaches a snooper, wherein the at least one list includes at least one connection identification of at least one active originator for ones of the at least one packet (Column 22, Lines 48-54).

17. With regards to Claim 15, Parantainen teaches a filter (Step 1012; Fig#15) for efficiently processing at least one packet incoming to a mobile station, comprising; a receiver for receiving IP ones and VJ uncompressed ones (Step 1010; Fig#15) of the packets, wherein said delineator seeks a connection identification in a one of the VJ uncompressed packets upon delineation of the one of the VJ uncompressed packets as destined for the mobile station, and wherein said delineator (Column 22, Lines 36-39) forwards the connection identification to a connection identification list for subsequently assessing a destination of at least one VJ compressed packet (Protocol/Application; Column 22, Line 51) associated with the one of the VJ uncompressed packets (Column 22, Lines 26-54).

18. With regards to Claim 16, Parantainen teaches a filter (Step 1012; Fig#15), wherein, upon delineation by said delineator of an IP packet, said delineator seeks a received connection identification in a subsequent one of the VJ uncompressed packets upon delineation of one of the IP packets if the one of the IP packets is delineated as destined for the mobile station (Column 22, Lines 26-54).

19. With regards to claim 17, Parantainen teaches a filter, further comprising a tether to at least one terminal equipment communicatively (Column 18, Lines 1-16) associated with said delineator (Column 22, Lines 36-39).

20. With regards to claim 18, Parantainen teaches a filter, wherein ones of the VJ uncompressed packets not delineated as destined for the mobile station are destined for the terminal equipment (Column 22, Lines 42-48).
21. With regards to claim 19, Parantainen teaches a filter, wherein ones of the IP packets are delineated (Column 22, Lines 36-39), and wherein ones of the IP packets not delineated as destined for the mobile station are destined for the terminal equipment (Column 22, Lines 42-48).
22. With regards to claim 20, Parantainen teaches a filter, further comprising a snooper (Step 1952, Fig#12), wherein the connection identification list is maintained at said snooper (Column 21, Lines 1-25).
23. With regards to claim 21, Parantainen teaches a filter, wherein at least one subsequent VJ compressed packets to a one of the VJ uncompressed packets having a connection identification on the connection identification list is uncompressed at the mobile station by said snooper (Column 21, Lines 1-25).
24. With regard to Claim 22, Parantainen teaches a method for efficiently processing at least one packet incoming to a mobile station (Mobile Station (MS); Column 19, Line 42), comprising; receiving VJ compressed ones of the at least one packet (Column 18, Line 2-3); storing (104, Fig#10) at least one list, wherein the at least one list includes at least one connection identification of at least one of an active originator and an active destination for ones of the at least one packet (Column 19, Lines 32-40); and comparing a received connection identification of one of the VJ compressed ones of the at least one packet against the at least one list (Column 20, Lines 22-39).

25. With regards to claim 23, Parantainen teaches a method, further comprising; selectively uncompressing one of the VJ compressed ones of the at least one packet locally to the received connection identifier (Column 22, Lines 26-54); forwarding only those VJ compressed ones of the at least one packet having a received connection identification matching one of the at least one connection identification on the at least one list to said selective uncompressing (Column 22, Lines 26-54).
26. With regards to claim 24, Parantainen teaches a method, wherein said selective uncompressing is local at the mobile station (Column 22, Lines 26-30).
27. With regards to claim 25, Parantainen teaches a method, wherein the at least one list includes at least one connection identification of at least one active destination for the VJ compressed ones of the at least one packet (Column 22, Lines 36-39).
28. With regards to claim 26, Parantainen teaches a method, wherein the at least one list includes at least one connection identification of at least one active originator for one of the at least one packet (Column 22, Lines 36-39).
29. With regards to claim 27, Parantainen teaches a snooper, wherein said selective uncompressing is local at a terminal equipment tethered to the mobile station (Column 2, Lines 56-66).
30. With regards to Claim 28, Parantainen teaches a method for efficiently filtering (Step 1012, Fig#15) at least one packet incoming to a mobile station, comprising; receiving IP ones and VJ uncompressed ones of the at least one packet (Column 22, Lines 44-48); delineating the IP ones from the VJ uncompressed ones of the IP packets (Column 22, Lines 48-51); seeking a connection identification in a one of the VJ

uncompressed packets upon said delineating of the one of the VJ uncompressed packets as destined for the mobile station (Column 22, 51-54); forwarding the connection identification to a connection identification list (Column 22, Lines 26-54).

31. With regards to Claim 29, Parantainen teaches a method, further comprising subsequently assessing a destination of at least one VJ compressed packet associated with the one of the VJ uncompressed packets in accordance with the connection identification list (Column 22, Lines 26-54).

32. With regards to Claim 30, Parantainen teaches a method, further comprising seeking a received connection identification in a subsequent one of the VJ uncompressed packets upon said delineating of the one of the IP packets as destined for the mobile station (Column 22, Lines 26-54).

33. With regards to claim 31, Parantainen teaches a method, further comprising tethering at least one terminal equipment to said delineating (Column 2, Lines 56-66).

34. With regards to claim 32, Parantainen teaches a method, further comprising forwarding ones of the VJ uncompressed packets not delineated by said delineating as destined for the mobile station to the terminal equipment (Column 2, Lines 56-66).

35. With regards to Claim 33, Parantainen teaches a system (Column 1, Lines 21-25) for efficiently processing at least one packet incoming to a mobile station, comprising; a mobile station (Column 1, Lines 23-24); a filter resident on said mobile station that differentiates IP (Column 1, Lines 41-43) ones of the least at least one packet and VJ uncompressed ones of the at least one packet; at least one PDSN in communication with said mobile station (Column 1, Lines 46-51); at least one terminal

equipment communicatively tethered to said mobile station (Column 1, Lines 23-24); at least one snooper (Step 1952, Fig#12) on said mobile station, wherein said snooper receives at least one VJ compressed one of the at least one packet incoming to the mobile station from at least one of said PDSN (Fig#1C) and said terminal equipment (Column 22, Lines 26-54, wherein the at least one VJ compressed packet is compared by said snooper to at least one list that includes at least one connection identification of at least one of an active originator and an active destination for ones of the at least one packet (Column 22, Lines 48-54), wherein the active destination is resident at least one of the terminal equipment and a site associated with the PDSN; and at least one connection local to said mobile station for receiving the at least one VJ compressed packet having the connection identifier that matches the at least one list (Column 22, Lines 34-42).

36. With regards to Claim 34, Parantainen teaches a snooper (Step 1020, Fig#15) for efficiently processing (130, 133, Fig#10) at least one Internet Protocol (IP) packet incoming to a mobile station, comprising; at least one storage element (104, Fig#10) for storing at least one list of Van Jacobson (VJ) connection identification (CID) (Compressed TCP/IP), each VJ CID associated with an active application running on the mobile station; and a processing element (Control Unit, 103; Fig#10) configured to delineate (113, Fig#10) between a packet with a VJ CID and a packet without VJ CID, and if the packet has a VJ CID, to compare the VJ CID against the entries of the at least one list (Interleaving Ciphering, 121; Fig#10).

37. With regards to claims 35, Parantainen teaches a method for using a mobile station (MS) as a gateway (Column 2, Lines 3-14) for application running on either the MS or a terminal equipment (TE) tethered to the MS (Column 2, Lines 15-19), comprising; forming a MS application list (Traffic Type; Column 12, Line 15) comprising connection identification (CID) information (Column 13, Lines 1-9); snooping incoming IP packets for CID information (Step 1952; Fig#12); comparing (Step 1956; Fig#12) each snooped CID information with CID information on the MS application list; if the snooped CID information is on the MS application list, then passing the IP packet to a TE application (Fig#12).

38. With regards to claim 36, Parantainen teaches a method, wherein forming the MS application list comprises; filtering an internet protocol (IP) packet for an application destination; and if the application destination is located at the MS, then adding the CID of the IP packet to the MS application list (Column 21, Lines 14-25).

39. With regards to claim 37, Parantainen teaches a method for assessing the destination of an Internet Protocol (IP) (Column 3, Lines 15-20) packet that has arrived at a mobile station (MS) without uncompressing a compressed header of the IP packet (Column 21, Lines 14-34), wherein the MS acts as a gateway (Access Network; Column 3, Line 5) for applications running on either the MS or a terminal equipment (TE) tethered to the MS, the method comprising; determining whether the IP packet has a TCP/IP packet header (Column 3, Lines 1-5); determining whether the TCP/IP packet header is a Van Jacobson (VJ) compressed or VJ uncompressed (Column 13, Lines 20-26); if the TCP/IP packet header is VJ uncompressed, then adding a connection

identification (CID) of the IP packet to an application list (Column 21, Lines 38-54); if the TCP/IP packet header is VJ compressed, then comparing the CID of the IP packet to each CID on the application list; if the CID of the IP packet is on the application list, then passing the IP packet to the MS without uncompressing the VJ compressed header (Column 21, Line 58-Column 22, Line 5); and if the CID of the IP packet is not on the application list, then forwarding the IP packet to the TE without uncompressing the VJ compressed header (Column 21, Lines 14-34).

40. With regards to claim 38, Parantainen teaches a apparatus for using a mobile station (MS) as a gateway (Access Network; Column 3, Line 5) for applications running on either the MS or a terminal equipment (TE) tethered to the MS, comprising; means for forming a MS application list comprising connection identification (CID) information (Column 3, Lines 1-5); means for snooping (Step 1952; Fig#12) incoming IP packets for CID information and for comparing each snooped CID information with CID information on the MS application list; and means for passing the IP packet to a MS application if the snooped CID information is on the MS application list and for passing the IP packet to a TE application if the second CID information is not on the MS application list (Column 21, Lines 1-34).

41. With regards to claim 39, Parantainen teaches a apparatus (Radio Resources; Column 12, Line 14) for assessing the destination of an Internet Protocol (IP) packet that has arrived at a mobile station (MS) without uncompressing a compressed header (Column 12, Lines 13-21) of the IP packet, wherein the MS acts as a gateway for applications running on either the MS or a terminal equipment (TE) tethered to the MS,

the apparatus comprising; means for determining whether the IP packet has a TCP/IP packet header (Packet Channel Request; Column 12, Lines 21-22) and for determining whether the TCP/IP packet is Van Jacobson (VJ) compressed or VJ uncompressed (Column 13, Lines 20-26); means for adding a connection identification (CID) of the IP packet (Countdown Value field; Column 14, Line 5) to an application list if the TCP/IP packet header is VJ uncompressed; means for comparing the CID of the IP packet to each CID on the application list if the TCP/IP packet header is VJ compressed; and means for passing the IP packet to the MS without uncompressing the VJ compressed header if the CID of the IP packet is on the application list and for passing the IP packet to the TE without uncompressing the VJ compressed header if the CID of the IP packet is not on the application list. (Column 14, Lines 41-65)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS E. SATKIEWICZ whose telephone number is (571)270-1948. The examiner can normally be reached on Monday to Thursday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas E Satkiewicz/
Examiner, Art Unit 4183

/Len Tran/
Supervisory Patent Examiner, Art Unit 4183